

Supplemental online content for:

Impact of Incident Cancer on Short-Term Coronary Artery Disease–Related Healthcare Expenditures Among Medicare Beneficiaries

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eAppendix 1: Adjusted Relationship Between Characteristics and CAD-Related Expenditures

eAppendix 2: Multinomial Logistic Regression Models Used to Derive Inverse Probability Treatment Weights

Appendix 1. Adjusted Relationship Between Characteristics and CAD-Related Expenditures			
Characteristics	β	SE	P Value
Predisposing factors			
Age, y			
68–70	−0.50	0.04	.000
71–74	−0.48	0.04	.000
75–79	−0.35	0.03	.000
≥80	Ref		
Race/Ethnicity			
White	0.33	0.05	.000
African American	0.79	0.07	.000
Hispanic	0.31	0.08	.000
Other	Ref		
Enabling factors			
Education level			
< national avg 12%	0.06	0.03	.031
≥ national avg 12%	Ref		
Poverty level			
< national avg 14.3%	−0.03	0.03	.262
≥ national avg 14.3%	Ref		
Donut hole			
Not reached	−0.35	0.05	.000
Reached	0.06	0.06	.337
Exceeded	Ref		
Need factors^a			
Concordant PHCs			
Yes	0.64	0.08	.000
No	Ref		
Discordant PHCs			
Yes	0.39	0.03	.000
No	Ref		
Mental health conditions			
Yes	0.74	0.03	.000
No	Ref		
CAD severity	0.80	0.06	.000
Health behavior			
Tobacco use			
Yes	0.36	0.05	.000
No	Ref		
Alcohol use			
Yes	0.43	0.11	.000
No	Ref		

Appendix 1. Adjusted Relationship Between Characteristics and CAD-Related Expenditures (cont.)			
Characteristics	β	SE	P Value
Healthcare use			
Primary care visit			
Yes	1.23	0.03	.000
No	Ref		
Cardiologist visit			
Yes	1.96	0.02	.000
No	Ref		
Adherence to medication ^b			
No ADH 2 Rx	0.55	0.04	.000
ADH 1 of 2 Rx	0.22	0.03	.000
ADH 1 Rx	−0.18	0.04	.000
No ADH 1 Rx	0.25	0.04	.000
ADH 2 Rx	Ref		
External environment and county-level factors			
SEER region			
Northeast	−0.25	0.05	.000
South	−0.02	0.05	.710
North Central	−0.12	0.05	.010
West	Ref		
Metropolitan status			
Metropolitan	−0.25	0.04	.000
Nonmetropolitan	Ref		
Health Professional Shortage Area			
No shortage	−0.05	0.05	.276
Part county	0.13	0.03	.000
Whole county	Ref		
Federally Qualified Health Center			
None	0.04	0.06	.510
1 to 10	0.06	0.04	.119
≥ 11	Ref		
Rural health centers			
Yes	0.02	0.03	.534
No	Ref		
Time	0.02	0.01	.000

Abbreviations: ACEI, angiotensin converting enzyme inhibitor; ADH, ARB, angiotensin II receptor blocker; avg, average; CAD, coronary artery disease; PHC, physical health condition.

^aConcordant PHCs consisted of diabetes, hyperlipidemia, hypertension, stroke, cardiac arrhythmia, and congestive heart failure. Discordant PHCs consisted of arthritis, asthma, chronic obstructive pulmonary disease, osteoporosis, dementia, HIV, and hepatitis. Mental health conditions included anxiety, depression, serious mental illness (schizophrenia, bipolar disorder, psychoses). Significance was derived from adjusted generalized linear model with gamma distribution and log-link. The analysis used 6 repeated measures.

^bNo ADH 2 Rx, not adherent to both medication classes; ADH 1 of 2 Rx, adherent to either statins or ACEIs/ARBs/β-blockers; ADH 1 Rx, use of 1 medication class and adherent to that class; No ADH 1 Rx, use of 1 medication class and not adherent to that medication class; ADH 2 Rx, adherent to both statins and ACEIs/ARBs/β-blockers.

eAppendix 2. Multinomial Logistic Regression Models Used to Derive Inverse Probability Treatment Weights															
Characteristics	Breast Cancer			CRC (Women)			CRC (Men)			Prostate Cancer			No Cancer (Women)		
	OR	95% CI	Sig ^a	OR	95% CI	Sig ^a	OR	95% CI	Sig ^a	OR	95% CI	Sig ^a	OR	95% CI	Sig ^a
Age, y															
68-70	0.48	0.43-0.54	***	0.24	0.20-0.28	***	0.56	0.47-0.67	***	1.45	1.31-1.60	***	0.39	0.37-0.42	***
71-74	0.66	0.60-0.73	***	0.36	0.31-0.42	***	0.84	0.73-0.98	*	1.94	1.77-2.13	***	0.47	0.45-0.51	***
75-79	0.87	0.80-0.96	**	0.55	0.49-0.63	***	0.91	0.78-1.05	***	1.81	1.64-1.99	***	0.59	0.56-0.63	***
≥80	Ref														
Race/Ethnicity															
African American	1.51	1.32-1.72	***	1.93	1.62-2.29	***	0.80	0.62-1.04	***	1.21	1.06-1.38	**	1.87	1.71-2.05	***
Hispanic	0.7	0.57-0.86	***	0.59	0.42-0.83	**	0.51	0.35-0.74	***	0.65	0.54-0.80	***	1.13	1.01-1.27	*
Other	0.41	0.35-0.48	***	0.72	0.59-0.88	**	0.78	0.64-0.95	*	0.52	0.46-0.59	***	0.93	0.86-1.00	
White	Ref														
Concordant PHC															
Yes	1.46	1.24-1.73	***	1.69	1.29-2.20	***	1.61	1.25-2.09	***	1.54	1.34-1.78	***	1.00	0.92-1.09	
No	Ref														
Discordant PHC															
Yes	1.68	1.56-1.81	***	1.82	1.64-2.02	***	1.13	1.01-1.27	*	0.96	0.89-1.03	***	1.75	1.67-1.84	***
No	Ref														
Mental health conditions															
Yes	1.20	1.07-1.34	**	1.19	1.02-1.39	*	0.89	0.73-1.09		0.58	0.50-0.66	***	1.48	1.37-1.59	***
No	Ref														
SEER region															
Northeast	1.31	1.19-1.45	***	1.58	1.38-1.81	***	1.32	1.14-1.54	***	1.09	0.99-1.20	***	1.27	1.20-1.36	***
South	1.12	1.02-1.24	*	1.34	1.16-1.54	***	1.02	0.87-1.18	***	0.99	0.91-1.08	***	1.24	1.16-1.31	***
North Central	1.41	1.25-1.58	***	1.68	1.42-1.98	***	1.30	1.08-1.56	**	1.35	1.22-1.51	***	1.26	1.17-1.36	***
West	Ref														
Index year															
2008	0.93	0.84-1.04		0.91	0.78-1.05		1.02	0.87-1.20		1.12	1.02-1.23	*	0.89	0.83-0.95	***
2009	0.95	0.86-1.05		0.89	0.77-1.03		0.94	0.80-1.10		1.06	0.96-1.16		0.90	0.84-0.96	***
2010	0.97	0.87-1.07		0.94	0.82-1.09		0.98	0.84-1.14		0.97	0.89-1.07		0.98	0.92-1.05	
2011	Ref														

Abbreviations: CAD, coronary artery disease; CRC, colorectal cancer; PHC, physical health conditions; sig, significance.
^aAsterisks represent significant differences in patient-level characteristics. No cancer (men) is the reference category for dependent variable.
 ***P<.001; **P<.01; *P<.05.